

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF OREGON

ROCKY BIXBY, LAWRENCE ROBERTA,  
SCOTT ASHBY, CHARLES ELLIS, MATTHEW  
HADLEY, JESUS BRUNO, COLT CAMPREDON,  
STEPHEN FOSTER, BYRON GREER, KELLY  
HAER, DENNIS JEWELL, STEPHEN  
MUELLER, VITO PACHECO, JOHN RYDQUIST,  
KEVIN STANGER, RONALD BJERKLUND,  
ADANROLANDO GARCIA, BRIAN HEDIN,  
CHARLES SEAMON, RANDY KEIPER, MATT  
KUHNEL, DENNIS ROSGEN, AARON  
ST. CLAIR, KEVIN WILSON, JASON BLAIN,  
JAMES BORJA, DEVON FIELDS, LESLIE ING,  
RICHARD LAWRENCE, JAY LOUISIANA,  
JAMES MCGOWAN, DONALD YEARGIN,  
JASON ARNOLD, and MICHAEL O'RIELLY,

Plaintiffs,

3:09-CV-632-PK

v.

OPINION AND  
ORDER

KBR, INC., KELLOGG, BROWN & ROOT SERVICE,  
INC., KBR TECHNICAL SERVICES, INC.,  
OVERSEAS ADMINISTRATION SERVICES, LTD.,  
and SERVICE EMPLOYEES INTERNATIONAL, INC.,

Defendants.

PAPAK, Magistrate Judge:

Plaintiffs Rocky Bixby, Lawrence Roberta, Scott Ashby, Charles Ellis, and Matthew  
Hadley filed this action against defendants KBR, Inc., Kellogg, Brown & Root Service, Inc.,

KBR Technical Services, Inc., Overseas Administration Services, Ltd., and Service Employees International, Inc. (collectively, the "KBR defendants"), on June 8, 2009. On September 8, 2009, plaintiffs amended their complaint, adding Carlos Avalos, Jesus Bruno, Colt Campredon, Stephen Foster, Byron Greer, Kelly Hafer, Dennis Jewell, Stephen Mueller, Vito Pacheco, John Rydquist, and Kevin Stanger as additional plaintiffs. Plaintiffs amended their pleading a second time on February 2, 2010, adding Ronald Bjerklund, Adanrolando Garcia, Brian Hedin, Lewis Martin, and Charles Seamon as additional plaintiffs. On June 25, 2010, plaintiffs amended their complaint a third time, adding Randy Keiper, Matt Kuhnel, Dennis Rosgen, Aaron St. Clair, and Kevin Wilson as further additional plaintiffs. On October 27, 2010, plaintiffs amended their complaint a fourth time, adding Jason Blain, James Borja, Devin Fields, Leslie Ing, Richard Lawrence, Jay Louisiana, James McGowan, and Donald Yeargin as further additional plaintiffs, and adding Halliburton Company and Halliburton Energy Services, Inc. (collectively, the "Halliburton defendants"), as additional defendants. Plaintiffs amended their complaint a fifth time on January 10, 2011, adding as additional plaintiffs Jason Arnold, Thomas Barella, Daniel Grover, Christopher Wangelin, and Michael O'Rielly. Plaintiffs voluntarily dismissed Barella as a plaintiff in this action on the following day, January 11, 2011, and voluntarily dismissed Grover as a plaintiff in this action on February 25, 2011. On June 16, 2011, these chambers recommended that the court dismiss the plaintiffs' claims to the extent alleged against the Halliburton defendants for lack of personal jurisdiction, and on July 20, 2011, Judge Hernandez adopted that recommendation as his own opinion. The parties stipulated to the dismissal of Avalos, Martin, and Wangelin as plaintiffs in this action, on December 16, 2011, and to the dismissal of O'Rielly as a plaintiff on April 4, 2012. In their fifth amended complaint, plaintiffs

allege defendants' liability for negligence and for fraud arising out of plaintiffs' exposure to sodium dichromate and subsequent hexavalent chromium poisoning while stationed as Oregon National Guardsmen in Iraq and assigned to duty at the Qarmat Ali water plant in May-September 2003.

Now before the court is defendants' motion (#204) for summary judgment as to the narrow issue of causation of plaintiffs' claimed medical personal injury damages. I have considered the motion, oral argument on behalf of the parties, and all of the pleadings on file. For the reasons set forth below, defendants' motion is granted in part and denied in part as set forth below.

### LEGAL STANDARD

Summary judgment is appropriate "if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c). Summary judgment is not proper if material factual issues exist for trial. *See, e.g., Celotex Corp. v. Catrett*, 477 U.S. 318, 322 (1986); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986); *Warren v. City of Carlsbad*, 58 F.3d 439, 441 (9th Cir. 1995), *cert. denied*, 116 S.Ct. 1261 (1996). In evaluating a motion for summary judgment, the district courts of the United States must draw all reasonable inferences in favor of the nonmoving party, and may neither make credibility determinations nor perform any weighing of the evidence. *See, e.g., Lytle v. Household Mfg., Inc.*, 494 U.S. 545, 554-55 (1990); *Reeves v. Sanderson Plumbing Products, Inc.*, 530 U.S. 133, 150 (2000).

## FACTUAL BACKGROUND

### I. Relevant Factual History<sup>1</sup>

Kellogg, Brown & Root Service, Inc. ("KB&RS") entered into Contract No. DACA63-03-D-0005 – known as the "Restore Iraqi Oil" or "RIO" contract – with the U.S. Army Corps of Engineers on March 8, 2003, pursuant to which KB&RS would perform tasks as ordered by the U.S. Army Corps of Engineers in connection with efforts to restore the infrastructure underlying the Iraqi oil industry.

Combat operations in Iraq began on March 19, 2003.

On March 20, 2003, the Corps of Engineers issued "Task Order 3," which governed the services to be provided by KBR and its subsidiaries at Qarmat Ali and other facilities. Under Task Order 3, the U.S. military would declare a given worksite to be "benign" before KBR would begin operations there. According to the deposition testimony of retired Brigadier General of the U.S. Army Corps of Engineers Robert Crear and of retired U.S. Army Corps of Engineers employee Gordon Sumner, "benign" referred to freedom from combatant activity and from nuclear or chemical weapons, and did not foreclose the possibility of environmental hazards, including hazardous (but not weaponized) chemicals. Support for this interpretation can be found in the provisions of Task Order 3, which suggest that pronouncement of a site as "benign" did not, for example, foreclose the need for environmental assessment.

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<sup>1</sup> Except where otherwise indicated, the following recitation constitutes my construal of the evidentiary record in light of the legal standard governing motions for summary judgment under Federal Civil Procedure Rule 56.

It appears from the language of Task Order 3<sup>2</sup> that KBR was responsible for providing the Corps of Engineers with an environmental assessment of any facility in which they undertook operations. The obligation to provide such assessments included the obligation to report and evaluate any environmental hazards. According to the deposition testimony of General Crear and of Sumner, KBR was not merely permitted but required under Task Order 3 and the RIO contract to take all necessary precautions to safeguard personnel who might potentially be exposed to environmental hazards at worksites, including the wearing of protective gear and/or the closing down of operations at any unsafe site.

The RIO contract sets forth specific health and safety requirements KBR was required to comply with in performing services under the contract, including Overseas Environmental Baseline Guidance Document 4715.5-G (Mar. 2000), OHSA standards, industry standards, CERCLA requirements, environmental assessment requirements, Army safety regulations, and Army Corps of Engineers safety standards. These requirements were never waived.

The RIO contract further provides that the U.S. government will indemnify KBR for any claims involving bodily injury or death arising out of KBR's provision of services under the contract.

In April 2003, the KBR defendants began operations at Qarmat Ali. In May 2003, the Oregon National Guard was assigned to the Doha Operations Center in Kuwait. Beginning some time after May 1, 2003, the KBR defendants, or some of them, would contact the Doha Operations Center and request assistance with security issues on a regular, perhaps daily basis, in

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<sup>2</sup> Moreover, the army briefed the Senate on December 22, 2008, that KBR was required to perform an initial site assessment of Qarmat Ali "in order to establish an environmental baseline."

accordance with the provisions of the RIO contract and Task Order 3. On some occasions, members of the Oregon National Guard would receive security assignments to the Qarmat Ali water plant, where they were allegedly exposed to sodium dichromate.

In an internal email, in June 2003 a KBR employee discussed sodium dichromate contamination at Qarmat Ali and recommended that remedial measures be taken, including excavating and placing in drums all contaminated soil.

Defendants did not advise the Oregon National Guard of the presence of sodium dichromate at Qarmat Ali until August 12, 2003, when KBR issued an official report to the army detailing the chemical's presence. The report indicated that sodium dichromate at Qarmat Ali constituted a serious health hazard.

The Qarmat Ali site was shut down September 9, 2003.

Plaintiffs are members of the Oregon National Guard allegedly exposed to sodium dichromate at Qarmat Ali in 2003 who have allegedly been harmed by their exposure.

## **II. Relevant Procedural History**

By minute order (#189) dated May 31, 2011, the court ordered plaintiffs to designate expert witnesses by not later than June 10, 2011, and ordered defendants to designate their defendants by not later than August 25, 2011. On June 7, 2011, plaintiffs produced to defendants the report of their expert witness Dr. Arch Carson, a physician and toxicologist with expertise in industrial chemical exposure. Carson's report of June 7, 2011 (Carson's "June 2011 report"), expressly indicated that it was intended to summarize preliminary results only, suggesting that further results would be forthcoming following further study:

During the past year, I have had the opportunity to oversee the interviews and

physical examinations of more than 150 of the military servicemen who performed protection services for KBR personnel and contractors at the Qarmat Ali Plant in 2003. **At the time of this report, those exams are continuing, but preliminary results will be summarized here.** The examinations for each individual consisted of: a self-administered questionnaire to obtain demographic and health history information; a physician interview regarding details of workplace exposures and activities; symptom chronologies and medical interventions; a physical examination by a licensed physician; blood testing for general indicators of illness; and a review of available medical records. **Not all parts of this examination are complete for all individuals at this time.**

Carson's June 2011 Report (Sugerman Decl., Exh. 67) at 6 (emphasis supplied). In his June 2011 report, Carson described the conditions under which the plaintiffs were exposed to sodium dichromate, *see id.* at 1-2, described the toxicological properties of sodium dichromate/hexavalent chromium, *see id.* at 2-3, and described the symptoms experienced by the plaintiffs since that time in collective, general terms, noting that there was a "great deal of consistency" in the plaintiffs' "strikingly similar" reports of "acute irritation symptoms on their skin and in their respiratory systems when they were in the exposure environment" and of the "ongoing and persistent health effects" that followed, *id.* at 3. Carson reported that:

Of 35 former guardsmen from Oregon who were examined by me, 25.7% have persistent lower respiratory symptoms and 34.3% have persistent upper respiratory symptoms. In this cohort, 17.1% have a medical diagnosis of asthma, reactive airways disease or chronic obstructive pulmonary disease (COPD). **This is more than double the age/race/gender-adjusted background rate for these diagnoses.** Also, 8.6% reported persistent nosebleeds since their assignments at Qarmat Ali; 31.4% report gastrointestinal diagnoses such as gastroesophageal reflux disease (GERD), irritable bowel syndrome (IBS) or hiatal hernia; 17.1% report chronic skin disease that significantly affects their ability to engage in certain activities; and 2.9% report a diagnosis of leather sensitivity or leather allergy.

*Id.* at 3-4 (emphasis supplied). Following a lengthy discussion of the mechanisms of sodium dichromate poisoning, *see id.* at 4, Carson opined as follows:

**The military personnel who experienced chemical irritation symptoms during their service at the Qarmat Ali Water Treatment Plant were injured in this way, experiencing transformation injury to some of their cells that were directly contacted by sodium dichromate or the hexavalent chromium it contained. For that reason, these persons have a higher risk of developing malignant tumors over time.**

**In my opinion, based upon the examinations and record reviews that I performed to date and upon my training and experience as an occupational medicine physician and medical toxicologist, much of the persistent respiratory complaints, digestive problems, persistent skin rashes and precancerous lesions currently present in military personnel who served at the Qarmat Ali Water Treatment Plant in 2003 is due to their exposures to sodium dichromate and the hexavalent chromium it contained.** Their service there resulted in these exposures, from which they were not appropriately protected. These opinions are held with respect to reasonable medical probability and are consistent with the scientific findings established by published research on this and related areas. The conclusions expressed in the individual summaries, provided under separate cover, are also arrived at with respect to reasonable medical probability, and are incorporated as a part of this opinion.

*Id.* at 4-5 (emphasis supplied). The "individual summaries" that were "provided under separate cover" to the defendants contemporaneously with the June 2011 report stated only that each examined plaintiff's symptoms were "consistent with" hexavalent chromium poisoning, and did not contain any opinion that the symptoms were in fact *caused by* exposure to sodium dichromate.

On September 30, 2011, defendants filed the motion for summary judgment as to the narrow issue of causation that is now before the court. On November 8, 2011, less than one week before their summary judgment opposition was due, plaintiffs provided to defendants a second report authored by Carson and signed by him on November 7, 2011 (Carson's "November 2011 report"). In the introductory paragraphs of his November 2011 report, Carson stated as follows:



I offer this report to supplement and clarify my prior June 7, 2011 Report. In this Supplemental Report, I address the following issues:

- I. My review of materials made available to me since the completion of my June 7, 2011 Report.
- II. The proper interpretation of my June 7, 2011 report and my in-person medical exams and interviews as they relate to my opinion regarding the Oregon Veterans' remote-exposure injuries.
- III. Clarification of my June 7, 2011 report as it stands in relation to the Oregon Veterans' remote-exposure injuries.
- IV. Clarification of my June 7, 2011, report as it stands in relation to the Oregon Veterans' current exposure-related illnesses.
- V. Whether the conclusions reached by USACHPPM undermine the clinical evaluation underlying this Supplemental Report.
- VI. The need for medical monitoring for Oregon Veterans who served at Qarmat Ali.

When I wrote my first report, I did not have the prior medical records on many of the Oregon Veterans. I have now received and have had an opportunity to review those records. In addition to the substantial documentary evidence that was made available to me since the issuance of my June 7, 2011 report, this Supplemental Report relies upon the differential diagnoses performed by way of my in-person medical interviews and medical exams of the Oregon Veterans, as well as the medical records available. During these exams and interviews, I obtained medical history information regarding the Veterans that included occupational exposures, exposures to other chemical hazards, and family histories. Furthermore, I and assisting physicians conducted physical clinical examinations and ordered lab work on each Veteran. The lab work performed on each Veteran was done primarily to rule out other potential causes for the various illnesses and symptoms that they are currently experiencing.

\* \* \*

The injuries attributable to Kevin Stanger and Jay Louisiana were excluded from my June 7, 2011 report. Mr. Stanger was in in-patient treatment for post traumatic stress disorder, and Mr. Louisiana was on deployment, which prevented me from examining them prior to June 7, 2011. Mr. Stanger and Mr. Louisiana were examined by Dr. Seres in Portland, Oregon, and I have since had an

opportunity to interview Mr. Stanger and Mr. Louisiana and conduct a clinical evaluation to support my differential diagnosis discussed below.

Carson's November 2011 Report (Sugerman Decl., Exh. 68) at 1-2. Carson further stated in his November 2011 report that it was his "intention" that his June 7, 2011 report "would provide a global opinion regarding exposure and distant injury and that, following further review of medical records and documents concerning Qarmat Ali, [he] would provide more detailed opinions for each [plaintiff]." *Id.* at 5.

Carson opined in his November 2011 report that:

[T]here are two classes of injuries that the Oregon Veterans sustained as a result of their exposure to Sodium Dichromate at Qarmat Ali. The first type of injury is an immediate irritation-type injury characterized by cell damage to exposed tissue.  
\* \* \*

\* \* \* These initial irritation injuries carry with them a risk of future cancers, as well.

*Id.* at 4-5. Carson further opined that:

In contrast to the above-listed irritation symptoms – i.e. nosebleeds, shortness of breath, taste abnormalities, eye irritation, sinus irritation – the remote-exposure injury persists to this day. The on-going skin problems that are now experienced by Oregon Veterans are caused by structural alteration and subsequent dysfunction of the involved tissues or by initial immunological sensitization and later-development [*sic*] of allergic response.

*Id.* at 6.

After describing an extensive body of evidence tending to establish that "there was a substantial degree of Sodium Dichromate contamination at Qarmat Ali," including uncontained sodium dichromate that "pelted [plaintiffs] as it blew in the open wind," sodium dichromate in hundreds of "mostly open" bags, and sodium dichromate visible on the desert sand surrounding the structures at Qarmat Ali, Carson opined that:

Because of the extremely noxious nature of Sodium Dichromate and the obvious prevalence of Sodium Dichromate contamination at Qarmat Ali, it cannot be seriously disputed that the [on-site, acute] symptoms typically associated with Sodium Dichromate exposure documented by Oregon Veterans were, in fact, caused by the extensive Sodium Dichromate contamination at Qarmat Ali and are demonstrative of an injury to the Veterans, including to their cellular DNA.

*Id.* at 9. Carson further opined, based on the evidence he reviewed, that:

[I]t cannot be seriously questioned that symptoms typically associated with harmful levels of Sodium Dichromate exposure visited upon the Oregon Veterans stationed at Qarmat Ali were, in fact, caused by the extensive Sodium Dichromate contamination found and documented at Qarmat Ali.

*Id.* at 12.

After indicating that he reached the conclusions that followed with respect to each plaintiff "to a standard of a reasonable degree of medical probability" following a "differential diagnosis analysis," *id.*, Carson then summarized the symptoms of each individual plaintiff, and opined that all or some set of each plaintiff's symptoms "were caused by" the plaintiff's "exposure to Sodium Dichromate while serving at the Qarmat Ali Water Treatment Plant," *id.* at 13 *et passim*. With respect to a small minority of plaintiffs, Carson additionally opined that the etiology of some subset of the presented symptoms could not be attributed to a reasonable degree of medical probability to sodium dichromate exposure. *See id.* at 14 (Avalos, Carlos), 15 (Bjerklund, Ronald; Blain, Jason), 24 (Yeargin, Donald).

Specifically, according to Carson's opinion testimony, thirty-two of the thirty-five plaintiffs whose injuries Carson addressed in his November 2011 report suffered symptomatic injury caused, to a reasonable degree of medical probability, by exposure to sodium dichromate at Qarmat Ali. However, Carson declined to opine that three plaintiffs – Carlos Avalos, Leslie Ing, and Charles Seamon – suffered symptomatic injury caused to a reasonable degree of medical

probability by exposure to sodium dichromate. As to Avalos, Carson discussed medical records establishing that Avalos suffered a recurring lip granuloma or lesion which, upon biopsy, was revealed to be a benign squamous mucosa with granulation. Carson further discussed Avalos' anecdotal report that he felt "an immediate burning sensation" at the future location of the lesion on his lip after dropping a cigarette on the sand at Qarmat Ali and then returning it to his mouth. Carson opined that it was "probable" that the lesion represented an injury caused by exposure to sodium dichromate, but expressly declined to offer such opinion "based on reasonable medical probability" due to the limited information available to him. The only opinion Carson offered "to a reasonable degree of medical probability" with respect to Avalos' injuries was his opinion that Avalos suffered from (apparently asymptomatic) "remote-exposure injury" caused by sodium dichromate exposure.

As to Ing, Carson discussed Ing's reports that while stationed at Qarmat Ali he regularly noticed a metallic taste in his mouth and a burning sensation in his neck and eyes. Carson opined to a reasonable degree of medical probability only that Ing suffered "remote Chromium VI exposure injury" caused by exposure to sodium dichromate at Qarmat Ali. As to Seamon, Carson discussed reports that Seamon suffered nosebleeds for approximately two weeks following his service at Qarmat Ali. Notwithstanding the foregoing, Carson opined to a reasonable degree of medical probability only that Seamon suffered "remote Sodium Dichromate exposure injury" caused by exposure to sodium dichromate at Qarmat Ali.

Finally, in his November 2011 report Carson addressed the U.S. Army Center for Health Promotion and Preventive Medicine's report regarding exposure to sodium dichromate at Qarmat Ali, detailing certain flaws in the USACHPPM's methodology and assumptions, *see id.* at 24-28,

and the need for medical monitoring of the plaintiffs as a consequence of their exposure to sodium dichromate, *see id.* at 29.

In a declaration likewise dated November 7, 2011 (Carson's "November 2011 declaration"), Carson provided some clarification of the opinion testimony offered in his November 2011 report. Carson specifically declared that:

As noted in my [November 2011] report (pp. 4-5), there are actually two types of injuries: 1) acute injuries arising from the immediate effects of these exposures; and 2) ongoing exposure-related illnesses. All [plaintiffs] had acute injuries. Some also had ongoing exposure related illnesses.

November 11 declaration at ¶ 7.

Plaintiffs filed their opposition to defendants' dispositive motion as to causation on November 14, 2011, just seven days after Carson signed his November 2011 report. Plaintiffs' opposition relies heavily, but not exclusively, on Carson's November 2011 report and November 2011 declaration, and to a lesser extent on Carson's June 2011 report and selected medical records of the plaintiffs.

On November 30, 2011, defendants moved to exclude Carson's November 2011 report and for imposition of additional sanctions against plaintiffs, arguing that the November 2011 report had been untimely disclosed. On December 30, 2011, I granted defendants' motion to exclude in part and denied it in part, ruling that the November 2011 report would not be excluded on grounds of untimeliness, but that plaintiffs would be taxed in the amount of all of defendants' attorney fees incurred in direct consequence of the report's untimeliness.

On April 20, 2012, by two separate motions, defendants moved to exclude Carson's opinion testimony regarding genetic transformation injury, remote exposure injury, and medical

monitoring and Carson's opinion testimony regarding the causation of plaintiffs' injuries. On August 29, 2011, I denied defendants' motion to exclude Carson's testimony regarding causation, but granted in part defendants' motion to exclude Carson's testimony regarding genetic transformation injury, remote exposure injury, and medical monitoring, ruling that to the extent Carson offered testimony regarding the persistence to the present day of any asymptomatic condition suffered by plaintiffs in consequence of their exposure to sodium dichromate at Qarmat Ali, regarding any personal injury damages flowing directly from any such asymptomatic condition, and regarding any consequential need for medical monitoring, Carson's testimony was inadmissible, and that his opinion testimony was otherwise admissible under Federal Evidence Rule 702. I therefore disregard all such inadmissible testimony in the analysis that follows.

### ANALYSIS

Under Oregon law, "[w]hen the element of causation involves a complex medical question, as a matter of law, no rational juror can find that a plaintiff has established causation unless the plaintiff has presented expert testimony that there is a reasonable medical probability that the alleged negligence caused the plaintiff's injuries." *Baughman v. Pina*, 200 Or. App. 15, 18 (2005), citing *Uris v. State Compensation Dep't*, 247 Or. 420, 424 (1967) ("Where injuries complained of are of such character as to require skilled and professional persons to determine the cause and extent thereof, the question is one of science and must necessarily be determined by testimony of skilled, professional persons") (internal quotation marks omitted). "Th[is] rule prevents jurors from speculating about causation in cases where that determination requires expertise beyond the knowledge and experience of an ordinary lay person." *Id.*, citing *Howerton v. Pfaff*, 246 Or. 341, 347-348 (1967). Here, plaintiffs rely exclusively on opinion testimony of

their medical expert Arch Carson in order to establish specific causation of plaintiffs' medical personal injury damages.<sup>3</sup> Defendants argue in support of their motion that Carson's proffered expert opinion testimony – or that portion of Carson's testimony that is admissible under Federal Evidence Rule 702 – is insufficient to establish that plaintiffs' exposure to sodium dichromate at Qarmat Ali caused their complained-of medical injuries.

The bulk of defendants' arguments in support of their motion address the admissibility of Carson's November 2011 report. Because the issues raised by these arguments have already been resolved in my Opinion and Order (#493) of August 29, 2011, I forbear to consider them here, except insofar as, as noted above, I disregard Carson's inadmissible testimony regarding the persistence to the present day of any asymptomatic condition suffered by plaintiffs in consequence of their exposure to sodium dichromate at Qarmat Ali, regarding any personal injury damages flowing directly from any such asymptomatic condition, and regarding any consequential need for medical monitoring. In this connection, it is worth clarifying that, for the reasons discussed in that Opinion and Order, I reject defendants' argument that Carson's testimony is either inadmissible or insufficient to establish causation due to Carson's failure to quantify each plaintiff's degree of exposure to sodium dichromate and/or to Carson's reliance on a model of sodium dichromate poisoning that posits the existence of no threshold harmful dosage level for sodium dichromate. I further reject defendants' argument that Carson's testimony is

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<sup>3</sup> That is, plaintiffs rely exclusively on Carson's testimony to establish that *each plaintiff's* injuries were caused, to a reasonable degree of medical probability, by exposure to sodium dichromate at Qarmat Ali. In addition, defendants rely in part on the testimony of their health and environmental risk expert Herman Gibb to establish *global* causation; that is, plaintiffs rely in part on the opinion testimony of Gibb to establish that sodium dichromate is capable of causing the types of injuries experienced by the plaintiffs generally.



insufficient to establish causation due to inconsistencies between plaintiffs' responses to a USACHPPM questionnaire and Carson's reports of plaintiffs' symptoms and/or due to inaccuracies in Carson's reports of plaintiffs' symptoms. Assuming *arguendo* that such inconsistencies or inaccuracies exist, they go to questions of weight or credibility rather than to admissibility, and in any event do not eliminate questions of fact as to causation raised by Carson's testimony.

I further disregard defendants' arguments directed specifically toward causation of the injuries suffered by former plaintiffs Avalaos, Martin, and Wangelin, each of whom has been dismissed as a plaintiff in this action.

Defendants note, correctly, that Carson declined to opine that plaintiffs Ing or Seamon suffered any symptomatic injury caused to a reasonable degree of medical probability by exposure to sodium dichromate at Qarmat Ali. In the absence of any expert opinion that Ing or Seamon suffered any symptomatic injury caused by their exposure to sodium dichromate at Qarmat Ali, plaintiffs cannot establish that Ing or Seamon are entitled to an award of damages as compensation for personal injury in direct consequence of their exposure to sodium dichromate. Defendants' motion is therefore granted as to Ing's and Seamon's prayer for such medical personal injury damages.

By contrast, a trier of fact could conclude on the basis of Carson's testimony, discussed at some length above, that the medical personal injury damages claimed by the remaining thirty-two plaintiffs were caused by sodium dichromate exposure at Qarmat Ali. Carson, a qualified expert, has offered his opinion, based on the reliable application of reliable principles and methods to sufficient data, that these damages were caused to a reasonable degree of medical probability by




such exposure. This opinion is sufficient as a matter of Oregon law to permit the prayer for medical personal injury damages asserted by all plaintiffs other than Ing and Seamon to survive defendants' motion. Defendants' motion is therefore denied other than as set forth above.

The foregoing disposition should not be construed as addressing any damages claimed by any plaintiff in this action other than medical personal injury damages. Any other type or class of damages is necessarily outside the scope of defendants' motion.

### CONCLUSION

For the reasons set forth above, defendants' motion (#204) for summary judgment regarding causation of plaintiffs' claimed medical personal injury damages is granted in part and denied in part as discussed above.

Dated this 31st day of August, 2012.

  
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Honorable Paul Papak  
United States Magistrate Judge